

*moths of the British Isles*. Viking, London). The adults observed at this site were of the large, boldly-marked form referred to as the subspecies *A. hastata hastata*, found throughout England and Wales to southern Scotland (Waring, Townsend & Lewington, 2003. *Field guide to the moths of Great Britain and Ireland*. British Wildlife Publishing). The smaller and more intricately marked northern form *nigrescens* is associated with Bog Myrtle in Scotland, although it is possible it also utilises birch (Skinner, *op. cit.*). These observations suggest that it may be worth examining Bog Myrtle where both the moth and the plant occur together elsewhere in the southern parts of its range. Any further observations of breeding requirements across its range may assist efforts to conserve this UK Biodiversity Action Plan Priority species, which has declined across much of its former range.

We would like to take this opportunity to thank English Nature for its continued support of Butterfly Conservation's *Action for Threatened Moths Project* and for access permission to the site.— D. HOARE, Butterfly Conservation, c/o Surrey Wildlife Trust, School Lane, Pirbright, Woking, Surrey GU24 0JN and M. PARSONS, Butterfly Conservation, Manor Yard, East Lulworth, Wareham, Dorset BH20 5QP.

### **The colonisation of north-east Scotland by Chamomile Shark *Cucullia chamomillae* (D. & S.) (Lep.: Noctuidae)**

The Chamomile Shark was unknown in north-east Scotland before 2003, but in the last three years it has been recorded as resident in all four Watsonian Vice-counties; VC 91 (Kincardineshire), VC 92 (South Aberdeenshire), VC 93 (North Aberdeenshire) and VC 94 (Banffshire). It is now present both at the coast and inland and is virtually ubiquitous in the arable farmland that dominates the northern part of VC 92 and the southern part of VC 93.

Palmer *et al* (*Ent. Rec.* **114**: 145-148 and 2006, in press\*) have shown that north-east Scotland is regularly gaining new species from the south and west, but the colonisation by Chamomile Shark stands out as being particularly rapid and spectacular. It is my contention that this has probably been the result of a combination of factors. Recent climatic changes have produced conditions in which the moth can survive and breed and the activities of man, notably through recent agricultural practices, have provided an abundance of the primary foodplant, scentless mayweed *Tripleurospermum indorum*, which has allowed it to spread rapidly and thrive.

Roy Leverton (2005. *Atropos* **26**: 53-54) has already described the early state of our knowledge of this colonisation. To summarise, I recorded a single adult inland from North Aberdeenshire VC 93 near Auchnagatt at O.S. grid reference NJ 9242 in 2003 and again from the same site in 2004, Mark Young also recorded an adult in VC 93 at Oldmeldrum NJ 8227 in 2004 and Roy Leverton found larvae on the Banffshire VC 94 coast near Macduff at NJ 7164 in 2004. Helen Taylor subsequently recorded another adult yet further inland near Fyvie at NJ 8039 in 2005.

With the moth apparently established as resident, a more concerted effort to search for larvae was made by several local lepidopterists in summer 2005 in order to try and

\*see pages 23-27 (Editor)

obtain a better picture of its distribution. Although adult moths are normally taken to light only in very low numbers, the larvae of Chamomile Shark are distinctive and reasonably easy to find by either searching or sweeping the foodplant. The results of searching for larvae in 2005 proved that Chamomile Shark is resident in all four Vice-counties. At the coast, Roy Leverton and Mark Young found it in VC 91 at St Cyrus, Nick Littlewood recorded it from Blackdog in VC 92 and a Glenn Roberts found it while surveying habitats near the Ythan estuary close to the VC 92/93 border. Inland, larvae were recorded from a total of 11 locations in VC 92 and VC 93. I found larvae near Auchnagatt at NJ 9242 (almost certainly the source of the adults trapped at my home site in 2003 and 2004), north of Ellon at NJ 9531 and west of New Deer at NJ 8647. Helen Taylor reported it from near Fyvie at NJ 7838 and Jon Bailey recorded it near Monymusk at NJ 6816. On 16 July 2005, I drove from Ellon to Inverurie and then to Oldmeldrum, checking likely sites at regular intervals. Larvae were duly recorded from 6 locations: west of Ellon at NJ 9031, near Udney Green at NJ 8725, at Whiterashes NJ 8523, between Whiterashes and Inverurie at NJ 8222, just east of Inverurie at NJ 7920 and at Oldmeldrum NJ 8026.

Perhaps most significantly, I drew not a single blank from my efforts in 2005 and recorded larvae at every one of the nine sites I visited. Wherever I stopped and checked scentless mayweed, I found Chamomile Shark. I should also point out that the sites I examined were only a small proportion of the locations with abundant scentless mayweed and many potential sites were ignored because they were close to sites where larvae had already been found. At all of the inland sites examined, the scentless mayweed was associated with land that has been disturbed as a result of human activity. While the locations included building sites and set-aside agricultural land, the majority were arable field margins, notably but not exclusively winter rape, where abundant scentless mayweed often extended well into the crop itself – presumably as a result of not spraying herbicides to the field edges.

While climatic change and agricultural practices may explain the rapid colonisation of north-east Scotland by Chamomile Shark, the original source of the moth and whether this colonisation is a local phenomenon or is part of a more widespread expansion is much less certain. Has it arrived through migration, expanded out from a hitherto unknown local or low-density resident population, or has it arrived from the south along the arable agricultural band that borders the east coast of Scotland? Previous Scottish records are concentrated far to the south, in the central belt, extending north only as far as southern Perthshire, although there is also a single record from Inverness-shire in 1954. Bob Palmer and others have recently recorded it in the west from Newton Stewart and from the Isle of Arran. I would be grateful for any information that readers might have that could shed light on this question, particularly recent records of the moth or its larvae from elsewhere in Scotland and northern England.

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